Amendments to the Claims

This listing of claims will replace all prior versions and listing of claims in the application:

Listing of Claims

Claim 1 (currently amended): In a multicast capable Internet Protocol (IP) network, a method of multicast address hopping for communicating multicast packets between transmitter and subscriber end stations on a chosen multicast (IP) address selected from a plurality of multicast IP addresses for multicast communication, the method comprising the step of:

selectively varying the chosen multicast IP address selected from the plurality of multicast IP addresses according to a predetermined scheme known only to the transmitter and subscriber end stations; and communicating the multicast packets on the chosen multicast IP address,

wherein electively varying the chosen multicast IP address is initiated by a cryptographic key.

Claim 2 (currently amended): The method of claim 1 wherein the multicast packets are communicated to an end station having subscribed to a set of multicast IP addresses known only to the transmitter and subscriber end stations comprising at least one multicast IP address known only to the transmitter and subscriber end stations, selected from the plurality of multicast IP addresses for multicast communication and including the chosen multicast IP address known only to the transmitter and subscriber end stations for transmitting the multicast packets.

Claim 3 (currently amended): The method of claim 2 wherein the set of multicast IP addresses is selectively varied according to a predetermined scheme known only to the transmitter and subscriber end stations.

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Claim 4 (currently amended): The method of claim 3 wherein the predetermined scheme for selectively varying the set of multicast IP addresses comprises ~~randomly~~ adding to and dropping from the set of multicast IP addresses in a sequence known only to the transmitter and subscriber end stations but which appears random to an attacker.

Claim 5 (currently amended): The method of claim 1 wherein the step of selectively varying the chosen multicast IP address comprises:

~~randomly~~ hopping from one multicast IP address to another in a sequence known only to the transmitter and subscriber end stations but which appears random to an attacker.

Claim 6 (currently amended): The method of claim 3 wherein the step of selectively varying the chosen multicast IP address comprises:

~~randomly~~ hopping from one multicast IP address to another chosen from the set of multicast IP addresses in a sequence known only to the transmitter and subscriber end stations but which appears random to an attacker.

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Claim 7 (currently amended): The method of claim 1, further including the steps of:

receiving unicast data intended for [a] an end destination host site by at least one remote decoy end station for transmitting multicast packets; and

formatting ~~said~~ the unicast data into ~~said~~ the multicast packets for communicating on ~~said~~ the chosen multicast IP address to at least one subscriber end station for receiving multicast packets;

wherein the at least one ~~of said~~ subscriber end station for receiving multicast packets is capable of communicating ~~said~~ the unicast data to ~~said~~ the host site.

Claim 8 (currently amended): The method of claim 7 further including the step of:

identifying to the IP network a preferred route to the end destination host site though ~~said~~ the at least one remote decoy end station for transmitting multicast packets.

Claim 9 (currently amended): The method of claim 8 [6] further including the step of:

filtering ~~said~~ the unicast data received at the at least one remote decoy end station and limiting the rate of communicating the multicast packets.

Claim 10 (currently amended): The method of claim 9 wherein the step of filtering comprises identifying and discarding, at the at least one remote decoy end station, unicast data implementing an attack on ~~said~~ the host site.

Claim 11 (currently amended): The method of claim 10 [6] wherein ~~said~~ the at least one remote decoy end station[s] for transmitting multicast packets is [are] located within a single autonomous system of the IP network.

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Claim 12 (currently amended): The method of claim 11 wherein ~~said~~ the at least one remote decoy end station for transmitting multicast packets is [are] located adjacent to border routers within the single autonomous system of the IP network.

Claim 13 (currently amended): In a multicast capable Internet Protocol (IP) network, a system of multicast address hopping for communicating multicast packets between transmitter and subscriber end stations on a chosen multicast (IP) address selected from a plurality of multicast IP addresses for multicast communication, the system comprising:

means for selectively varying the chosen multicast IP address from the plurality of multicast IP addresses according to a predetermined scheme known only to the transmitter and subscriber end stations; and means for communicating the multicast packets on the chosen multicast IP address,

wherein the means for selectively varying the chosen multicast IP address is initiated by a cryptographic key.

Claim 14 (currently amended): The system of claim 13 wherein the multicast packets are for communication to an end station having means to subscribe[d] to a set of multicast IP addresses known only to the transmitter and subscriber end stations comprising at least one multicast IP address known only to the transmitter and subscriber end stations selected from the plurality of multicast IP addresses for multicast communication and including the chosen multicast IP address known only to the transmitter and subscriber end stations for transmitting

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the multicast packets.

Claim 15 (currently amended)): The system of claim 14 wherein the multicast packets are for communication to an end station having means to selectively vary the set of multicast IP addresses according to a predetermined scheme known only to the transmitter and subscriber end stations.

Claim 16 (currently amended)): The system of claim 15 wherein the predetermined scheme for selectively varying the set of multicast IP addresses comprises ~~randomly~~ adding to and dropping from the set of multicast IP addresses in a sequence known only to the transmitter and subscriber end stations but which appears random to an attacker.

Claim 17 (currently amended): The system of claim 13 wherein the means for selectively varying the chosen multicast IP address comprises:

means for ~~randomly~~ hopping from one multicast IP address to another in a sequence known only to the transmitter and subscriber end stations but which appears random to an attacker.

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Claim 18 (currently amended): The system of claim 15 wherein the means for selectively varying the chosen multicast IP address comprises:

means for ~~randomly~~ hopping from one multicast IP address to another chosen from the set of multicast IP addresses in a sequence known only to the transmitter and subscriber end stations but which appears random to an attacker.

Claim 19 (currently amended): The system of claim 13, further comprising:

means for receiving unicast data intended for [a] an end destination host site by at least one remote decoy end station for transmitting multicast packets; and

means for formatting ~~said~~ the unicast data into ~~said~~ the multicast packets for communicating on ~~said~~ the chosen multicast IP address to at least one subscriber end station for receiving multicast packets;

wherein the at least one ~~of said~~ subscriber end station for receiving multicast packets comprises means for communicating ~~said~~ the unicast data to ~~said~~ the host site.

Claim 20 (currently amended): The system of claim 19 further comprising:

means for identifying to the IP network a preferred route to the end destination host site through ~~said~~ the at least one remote decoy end station for transmitting multicast packets.

Claim 21 (currently amended): The system of claim 20 [18] further comprising:

means for filtering ~~said~~ the unicast data received at the at least one remote decoy end station and limiting the rate of communicating multicast packets.

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Claim 22 (currently amended): The system of claim 21 wherein the means for filtering comprises means for identifying and discarding, at the at least one remote decoy end station, unicast data implementing an attack on ~~said~~ the host site.

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Claim 23 (currently amended): The system of claim 22 [18] wherein ~~said~~ the at least one remote decoy end station[s] for transmitting multicast packets is [are], when in use, located within a single autonomous system of the network.

Claim 24 (currently amended): The system of claim 23 wherein ~~said~~ the at least one remote decoy end station for transmitting multicast packets is [are], when in use, located adjacent to border routers within the single autonomous system of the network.

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